

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the modification of the existing traffic controlsignalat the intersection of US 301 and Pierce Road/VFW Road in Charles County, Maryland. US 301 is considered to run in an north/south direction.

II. INTERSECTION OPERATION

The intersection presently operates in a NEMA two (2) phase and wilbe modified to operate in NEMA six (6) phase, full-traffic-actuated mode. There will be an exclusive left turn phase for both the north and southbound movement of US 301. The US 301 through movements will operate concurrently. The Pierce Road/VFW Road movements will operate as side street split operation.

The existing cabinet/controller will be utilized with an additional four 4-channelrack mounted time delay output loop detector amplifiers.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
1	EA	818	27 ft. steel mast arm pole with 50 ft. mast arm (Painted NPS brown) [Note: four 1-3/4 in. x 90 in. anchor bolts].
1	EA	818	27 ft. steel twin mast arm pole with 60 ft. and 50 ft. mast arms (Painted NPS brown) [Note: four 2 in. x 90 in. anchor bolts].
1	EA	816	10 ft. mini mast arm (Painted NPS brown).
4	EA	816	4-channel rack mounted loop detector amplifiers.
4	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.
3	EA	814	12 in., one-way, three section (RA,YA,GA) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, three section (RA,YA,GA) adjustable traffic signal head with pole mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, four section (R,Y,G,GA) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.
5	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.
2	EA	813	32 in x Var. D 3-2 Sign with mast arm mounting hardware.
2	EA	813	48 in x 48 in. W 3-3 "NEW" sign for ground mounting.
2	EA	813	36 in. x 36 in. W 3-3 "NEW" sign for ground mounting.
2	EA	813	48 in. x 96 in. D-(3) sign for ground mounting.
2	EA	813	18 in. x 60 in. M95-1 sign with mast arm mounting hardware.
1	EA	806	15 ft. luminaire arm (painted NPS brown).
1	EA	806	10 ft. luminaire arm (painted NPS Brown).
2	EA	806	250 w H.S.P. lamp and luminaire.

B. Equipment to be furnished and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
3	CY	205	Test pit excavation.
8	EA	811	Handhole.
1110	LF	815	Sawcut for signal loop detector.
4060	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
4350	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
445	LF	810	2-conductor tray cable (No. 12 A.W.G.).
1225	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
550	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
225	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
75	LF	805	1 in. liquid tight flexible non-metalic conduit for loop detector sleeve.
500	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
40	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit- trenched.
90	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
105	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
180	LF	805	4 in. polyvinly chloride [Schedule 80] electrical conduit - trenched.
7.30	CY	801	Concrete foundation for traffic signal equipment.
2	EA	804	Ground rod ~3/4 in. diameter x 10 ft. length.
2	EA	810	Loop detector splice.
200	LF	812	4 in. x 6 in. wood sign support.
225	LF	550	24 in. wide pavement marking - white (HAPPTPM).
Lump Sum	LS	---	Remove and salvage existing traffic signal equipment.
Lump Sum	LS	---	Remove and salvage existing street lighting equipment.
Lump Sum	LS	---	As-built for S.H.A [on CADD].

CONTACT LIST

The contact persons for District #5 are as follows:

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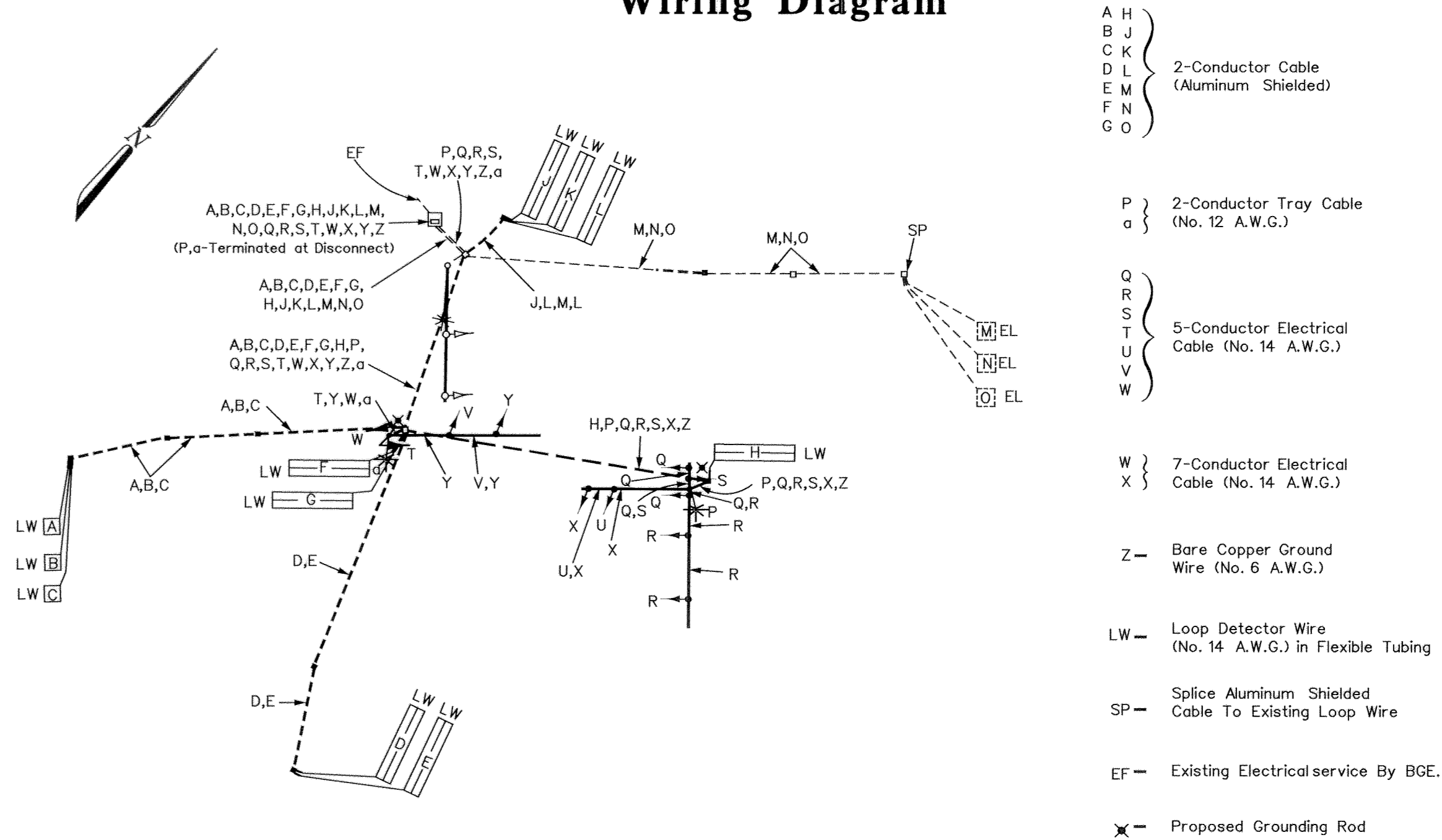
NOTE:

NPS refers to National Park Service

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	13
	(RB) (Y) (GB)	(RB) (Y) (GB)	(RB) (Y) (GB)	(R) (Y) (G)	(R) (Y) (G)	(RB) (Y) (GB)	(RB) (Y) (GB)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (GB)	(R) (Y) (G)	(R) (Y) (GB)	(R) (Y) (G)
Phase 1 & 5	←G→	←G→	←G→	R	R	←G→	←G→	R	R	R	R	R	R
1 & 5 change to phase 1 & 6 or phase 2 & 5 or phase 2 & 6													
Phase 1 & 6	←G→	←G→	←G→	G	G	←R→	←R→	R	R	R	R	R	R
1 Change	←Y→	←Y→	←Y→	G	G	←R→	←R→	R	R	R	R	R	R
Phase 2 & 5	←R→	←R→	←R→	R	R	←G→	←G→	G	G	R	R	R	R
5 Change	←R→	←R→	←R→	R	R	←Y→	←Y→	Y	Y	R	R	R	R
Phase 2 & 6	←R→	←R→	←R→	G	G	←R→	←R→	G	G	R	R	R	R
2 & 6 Change	←R→	←R→	←R→	Y	Y	←R→	←R→	G	G	R	R	R	R
Phase 3	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←G→	G	R	R
3 Change	←R→	←R→	←R→	R	R	←R→	←R→	R	R	Y	Y	R	R
Phase 4	←R→	←R→	←R→	R	R	←R→	←R→	R	R	R	R	←G→	G
4 Change	←R→	←R→	←R→	R	R	←R→	←R→	R	R	R	Y	Y	Y
Flashing Operation	←FL/R→	←FL/R→	←FL/R→	FL/Y	FL/Y	←FL/R→	←FL/R→	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

Wiring Diagram



MDOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

(General Information)

US 301 at Pierce Road/
VFW Road

DATE: June 11, 1999

LOG MILE * 08030125.48

DRAWN BY: FJH

F.A.P. NO. N/A

PLAN SHEET NO.:

SHEET NO.

CHK. BY:

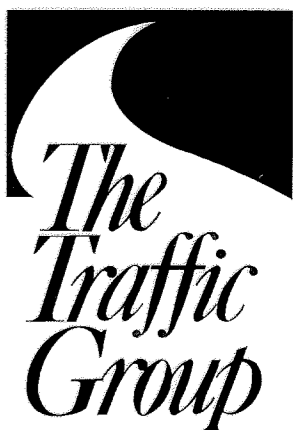
S.H.A. NO. BW996M82

3486A-GI

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SCALE: N/A

COUNTY: Charles



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